

## Claims

- [c1] 1. An arrangement for detecting X-ray radiations comprising:  
a carrying member, arranged on at least one side with one or more detectors  
comprising a plurality of sensors provided on a substrate, wherein said  
detectors are arranged substantially edge to edge and side by side at least in  
one row on at least said one side of said carrying member, and said detector  
further comprising a sensor plane, said sensor plane arranged in an angle  
incident to X-ray beams.
- [c2] 2. The arrangement according to claim 1 wherein at least two detectors are  
arranged in at least two levels and displaced relative each other such that an  
inactive section on one detector is overlapped with an active area of the other  
electrode.
- [c3] 3. The arrangement according to claim 1 wherein said sensor plane is arranged  
in parallel to incident X-ray beams.
- [c4] 4. The arrangement according to claim 1 wherein said carrying member is tilted  
to arrange said sensor plane in said angle.
- [c5] 5. The arrangement according to claim 1 wherein said detector is arranged on a  
supporting member.
- [c6] 6. The arrangement according to claim 1 wherein the detectors are further  
comprised of a scintillator optically connected to a CCD, silicon diodes, a  
gaseous detector, a parallel plate chamber where the gas volume is oriented  
edge-on to the incident X-ray's.
- [c7] 7. An X-ray apparatus comprising:  
an essentially planar member of a material non-transparent to X-rays, having  
an elongated slot formed therein,  
an array of detectors provided in communication with said slots and  
arranged to detect - rays and for providing a signal representing the  
intensity of said X-rays imaging thereon,  
means for moving a beam directing member and an object to be  
examined relative each other,

wherein said array of detectors comprises substantially in parallel arranged detector arrangements consisting of one or several carrying members, each arranged on at least one face with detectors comprising a plurality of sensors provided on a substrate, and wherein said detectors are arranged substantially edge to edge and side by side at least one side of said carrying member.

[c8] 8. The apparatus according to claim 7 wherein at least two detectors are arranged in at least two levels and displaced relative each other such that an inactive section on one detector is overlapped with an active area of the other electrode.

[c9] 9. The apparatus according to claim 7 wherein it further includes means to acquire data from said detector arrays at intervals corresponding to a fraction of the width of said sensor arrays.

[c10] 10. The apparatus according to claim 9 wherein the sensors on said detector arrays are made of silicon wafers oriented substantially edge-on to the incident X-ray's.

[c11] 11. The apparatus according to claim 7 wherein said detector has a sensor plane, and that sensor plane is arranged in an angle to incident x-ray beams.

[c12] 12. The apparatus according to claim 7 wherein said detector has a sensor plane, and that sensor plane is arranged in parallel to incident x-ray beams.

[c13] 13. The apparatus according to claim 7 wherein said beam directing member is arranged with slots in at least two rows, and slots in each row displaced relative each other.

[c14] 14. The apparatus according to claim 7 wherein said beam directing member is refracting or focusing member.

[c15] 15. A method for scanning in an apparatus according to claim 7, comprising the steps of:  
arranging a first part of collimators before start of the scanning in a field of view while the second part of the collimators are outside the field of view,

TOP SECRET

Sub  
A1

SUB  
A1  
CONCLUS

starting the scan from a first position and said collimators and detectors having a first speed,  
bringing the said collimators and detectors to a maximum, substantially constant speed when all collimators and detectors are in the field of view, and when the first collimator is outside the field of view, bringing the said collimators and detectors to a third speed.

[c16] 16. The method according to claim 15 wherein the further step of stopping the scan when said second part of the collimators are outside the field of view.

[c17] 17. The method according to claim 15 wherein an acceleration time before the scan reaches a maximum speed and a deceleration time before it stops is determined in such a way that the 10 parts of an image where the acceleration and retardation takes place obtains substantially a same photon statistics as the rest of the image.

[c18] 18. A method for scanning in an apparatus according to claim 7, comprising the steps of:  
starting a scan,  
when the scan starts, providing said slots and corresponding detectors substantially outside a field of view;  
passing substantially all slots and corresponding detectors the object and thus the said field of view  
measuring scan X-ray fluxes together with position coordinates for all detectors;  
terminating the scan only after all slots and corresponding detectors are substantially outside the field of view.

[c19] 19. The method according to claim 18, further comprising the step of incrementing the scanning at least a distance corresponding to a fraction of a distance of the detectors arrangements.

[c20] 20. The method according to claim 19 wherein the scan is continuous and that readout of data is performed at intervals corresponding to a fraction of a distance between the detector arrangements.

[c21]

21. The method as claimed in claim 19 wherein readout data for each increment and for each sensor array is stored as data arrays, and wherein said stored data for each sensor array are separately combined to form an image, and wherein images obtained by each sensor array are superposed to form a final image.

add A21

1990-1991  
 1991-1992  
 1992-1993  
 1993-1994  
 1994-1995  
 1995-1996  
 1996-1997  
 1997-1998  
 1998-1999  
 1999-2000  
 2000-2001  
 2001-2002  
 2002-2003  
 2003-2004  
 2004-2005  
 2005-2006  
 2006-2007  
 2007-2008  
 2008-2009  
 2009-2010  
 2010-2011  
 2011-2012  
 2012-2013  
 2013-2014  
 2014-2015  
 2015-2016  
 2016-2017  
 2017-2018  
 2018-2019  
 2019-2020  
 2020-2021  
 2021-2022  
 2022-2023  
 2023-2024  
 2024-2025  
 2025-2026  
 2026-2027  
 2027-2028  
 2028-2029  
 2029-2030  
 2030-2031  
 2031-2032  
 2032-2033  
 2033-2034  
 2034-2035  
 2035-2036  
 2036-2037  
 2037-2038  
 2038-2039  
 2039-2040  
 2040-2041  
 2041-2042  
 2042-2043  
 2043-2044  
 2044-2045  
 2045-2046  
 2046-2047  
 2047-2048  
 2048-2049  
 2049-2050  
 2050-2051  
 2051-2052  
 2052-2053  
 2053-2054  
 2054-2055  
 2055-2056  
 2056-2057  
 2057-2058  
 2058-2059  
 2059-2060  
 2060-2061  
 2061-2062  
 2062-2063  
 2063-2064  
 2064-2065  
 2065-2066  
 2066-2067  
 2067-2068  
 2068-2069  
 2069-2070  
 2070-2071  
 2071-2072  
 2072-2073  
 2073-2074  
 2074-2075  
 2075-2076  
 2076-2077  
 2077-2078  
 2078-2079  
 2079-2080  
 2080-2081  
 2081-2082  
 2082-2083  
 2083-2084  
 2084-2085  
 2085-2086  
 2086-2087  
 2087-2088  
 2088-2089  
 2089-2090  
 2090-2091  
 2091-2092  
 2092-2093  
 2093-2094  
 2094-2095  
 2095-2096  
 2096-2097  
 2097-2098  
 2098-2099  
 2099-2100  
 2100-2101  
 2101-2102  
 2102-2103  
 2103-2104  
 2104-2105  
 2105-2106  
 2106-2107  
 2107-2108  
 2108-2109  
 2109-2110  
 2110-2111  
 2111-2112  
 2112-2113  
 2113-2114  
 2114-2115  
 2115-2116  
 2116-2117  
 2117-2118  
 2118-2119  
 2119-2120  
 2120-2121  
 2121-2122  
 2122-2123  
 2123-2124  
 2124-2125  
 2125-2126  
 2126-2127  
 2127-2128  
 2128-2129  
 2129-2130  
 2130-2131  
 2131-2132  
 2132-2133  
 2133-2134  
 2134-2135  
 2135-2136  
 2136-2137  
 2137-2138  
 2138-2139  
 2139-2140  
 2140-2141  
 2141-2142  
 2142-2143  
 2143-2144  
 2144-2145  
 2145-2146  
 2146-2147  
 2147-2148  
 2148-2149  
 2149-2150  
 2150-2151  
 2151-2152  
 2152-2153  
 2153-2154  
 2154-2155  
 2155-2156  
 2156-2157  
 2157-2158  
 2158-2159  
 2159-2160  
 2160-2161  
 2161-2162  
 2162-2163  
 2163-2164  
 2164-2165  
 2165-2166  
 2166-2167  
 2167-2168  
 2168-2169  
 2169-2170  
 2170-2171  
 2171-2172  
 2172-2173  
 2173-2174  
 2174-2175  
 2175-2176  
 2176-2177  
 2177-2178  
 2178-2179  
 2179-2180  
 2180-2181  
 2181-2182  
 2182-2183  
 2183-2184  
 2184-2185  
 2185-2186  
 2186-2187  
 2187-2188  
 2188-2189  
 2189-2190  
 2190-2191  
 2191-2192  
 2192-2193  
 2193-2194  
 2194-2195  
 2195-2196  
 2196-2197  
 2197-2198  
 2198-2199  
 2199-2200  
 2200-2201  
 2201-2202  
 2202-2203  
 2203-2204  
 2204-2205  
 2205-2206  
 2206-2207  
 2207-2208  
 2208-2209  
 2209-2210  
 2210-2211  
 2211-2212  
 2212-2213  
 2213-2214  
 2214-2215  
 2215-2216  
 2216-2217  
 2217-2218  
 2218-2219  
 2219-2220  
 2220-2221  
 2221-2222  
 2222-2223  
 2223-2224  
 2224-2225  
 2225-2226  
 2226-2227  
 2227-2228  
 2228-2229  
 2229-2230  
 2230-2231  
 2231-2232  
 2232-2233  
 2233-2234  
 2234-2235  
 2235-2236  
 2236-2237  
 2237-2238  
 2238-2239  
 2239-2240  
 2240-2241  
 2241-2242  
 2242-2243  
 2243-2244  
 2244-2245  
 2245-2246  
 2246-2247  
 2247-2248  
 2248-2249  
 2249-2250  
 2250-2251  
 2251-2252  
 2252-2253  
 2253-2254  
 2254-2255  
 2255-2256  
 2256-2257  
 2257-2258  
 2258-2259  
 2259-2260  
 2260-2261  
 2261-2262  
 2262-2263  
 2263-2264  
 2264-2265  
 2265-2266  
 2266-2267  
 2267-2268  
 2268-2269  
 2269-2270  
 2270-2271  
 2271-2272  
 2272-2273  
 2273-2274  
 2274-2275  
 2275-2276  
 2276-2277  
 2277-2278  
 2278-2279  
 2279-2280  
 2280-2281  
 2281-2282  
 228